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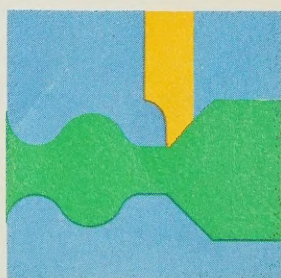
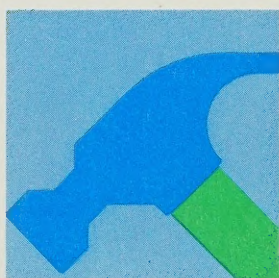
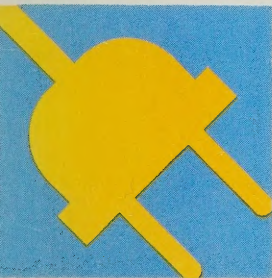
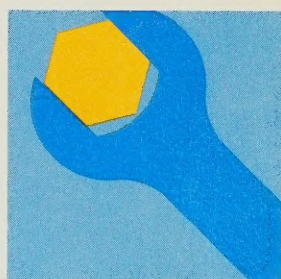
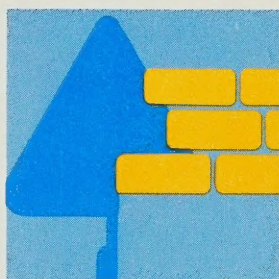
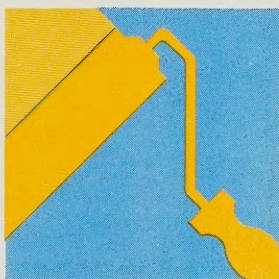
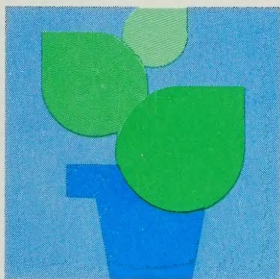
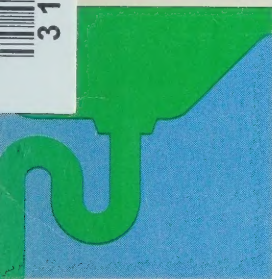
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Manpower Training Br.
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Training for the Skilled Trades

Ontario's
Apprenticeship
Program

Government
Publications



**Training for
the Skilled
Trades**

**Ontario's
Apprenticeship
Program**

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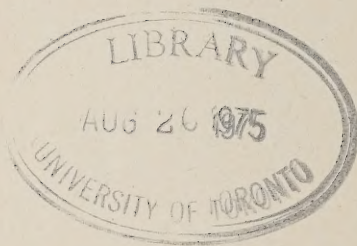


Ontario

Ministry of
Colleges and
Universities

Hon. James A. C. Auld, Minister
Dr. J. Gordon Parr, Deputy Minister

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Apprenticeship: Education for Employment

People with marketable skills are in demand. Ontario's growing economy has created a continuing need for competent, qualified individuals in all career fields. And nowhere is this need more evident than in the skilled trades.

For those interested in learning skilled trades and becoming qualified tradespeople, the Ontario Ministry of Colleges and Universities offers apprenticeship training in more than 300 trades. This booklet describes the Ontario apprenticeship system in general, and offers capsule descriptions of the more common trades in which apprenticeship training is available.

How Apprenticeship Works

Learning by Doing

The theory behind apprenticeship training is simple—you learn best by doing. In Ontario apprenticeship is a systematic program of on-the-job training and related classroom instruction designed to produce fully qualified tradespeople, or "journeymen". As an apprentice, you work under the direction of a qualified tradesperson and become familiar with the principles, skills, tools and materials of your trade.

Depending on the trade, an apprenticeship program varies in length from two to five years. During this time you are contracted to an employer who is obliged to see that you are properly instructed in all aspects of your trade. Your obligation as an apprentice is to perform your job to the best of your ability.

Apprentices are employees and as such are paid an increasing percentage of the going rate for journeymen. The exact rate of progression varies, but you generally start at 40 per cent of the wage paid to the journeyman under whom you are learning your trade. This rate increases by 10 per cent or more during each stage of the apprenticeship program. So you earn while you learn.

Classroom Instruction

During your apprenticeship program, you may receive two or more courses of classroom

instruction dealing with theoretical aspects of your trade: a basic course during the first year of the contract, possibly an intermediate one, and an advanced course towards the end. Most courses are conducted at Ontario Colleges of Applied Arts and Technology.

In the trades of baker, barber, chef and hairdresser, you are enrolled in a community college training course immediately upon registration of your apprenticeship contract, or as soon as possible thereafter.

All costs associated with classroom instruction are paid by the federal and provincial governments. These include tuition fees, transportation costs (to and from school at the beginning and end of each course), and a weekly allowance to cover food, accommodation, and other expenses incurred while you are attending school. These allowances are amended annually in relation to the cost-of-living index.

Reaching the Goal

When you complete your required training and pass trade examinations with a mark of 60% or higher, you will receive a "Certificate of Apprenticeship". This document verifies that your trade skills are up to Ontario standards. In

some trades, a mark of 70% or higher will allow you to add an "Interprovincial Red Seal" to your certificate. The Red Seal indicates that your trade qualifications are acceptable right across Canada.

Certificates of Qualification

In Ontario there are two kinds of regulated trades: those with compulsory certification (where you must possess a Certificate of Qualification or be a registered apprentice to work at the trade) and those with voluntary certification (where it is up to the worker whether or not he wishes to qualify for a Certificate of Qualification).

Holders of Certificates of Apprenticeship qualify for Certificates of Qualification without further examination, in the trades where they are available. The compulsory Certificate of Qualification must be renewed every second year. The voluntary Certificate does not require renewal.

The Interprovincial Red Seal is also placed on Certificates of Qualification.

A Certificate of Qualification indicates that the holder possesses certain defined skills and knowledge which he or she is capable of using in practical work situations.

Becoming an Apprentice

The First Step

If you are interested in becoming an apprentice, contact the Ontario Manpower Training Branch at any one of the regional offices listed on page 38 and arrange for an interview with an Apprenticeship Counsellor. During the interview, your Counsellor will be interested in your educational background, health, plans and interests. He will help you choose the right trade for you by outlining career prospects, wages, working conditions, and other factors that you may wish to consider. He will advise you of your eligibility for employment as an apprentice.

Apprenticeship Counsellors are approachable ex-tradespeople who will see that your best interests are served.

Entry Qualifications

If you are 16 years of age or older, physically fit, and if you have attained year 2 of a secondary school program (Grade 10) or an equivalent level of education, you are eligible for apprenticeship training. (In a few trades, lower qualifications are accepted.) Those who do not have year 2 standing may obtain it through night school or correspondence

courses. Those passing a Progressive Achievement Test administered by the Ontario Manpower Training Branch will also be considered for apprenticeship training.

School Credits

Secondary and post-secondary school students normally receive a 50 hour time reduction from each apprenticeship period for each academic grade level achieved beyond the apprenticeship entry level. Students may receive additional 50 hour credits for each trade subject credit (110-120 scheduled classroom hours) achieved beyond the entry level. Your guidance counsellor will be able to help you identify these subjects. Exceptions are noted in the individual trade description.

Initiative

When you are approved as eligible for apprenticeship training by the Ontario Manpower Training Branch, the next step is to find an employer who will agree to undertake

your training. This is not as difficult as it may sound. Most employers recognize that apprenticeship training is a wise investment in the development of skilled manpower.

Your Apprenticeship Counsellor or local Canada Manpower Centre will be able to tell you which firms have openings in a particular trade. Business agents of local unions connected with a trade can be very helpful and should be consulted regarding apprentice openings.

Registration

When you have found employment as an apprentice, you and your employer will sign a contract specifying conditions of employment such as hours of work, wages to be paid, overtime rules, etc. If you are under 18, a parent or guardian must also sign. Your contract is then registered with the Ontario Manpower Training Branch, and you are on your way.

Counselling

During your training period, district Apprenticeship Counsellors will call on you and your employer to ensure that your training program, rates of pay and working conditions are satisfactory.

Apprenticeship Trades Index

The regulated trades—trades for which a formal Ontario regulation exists, and for which Certificates of Qualification are available—are divided into three areas for apprenticeship training: the construction trades, the motive power trades, and the service trades. These trades are described in this booklet.

Apprenticeship training is also available in a wide range of non-regulated trades, some of which are covered here.

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*A full listing is shown in MTB-5002, *Apprenticeship Non-Regulated Trades*, and MTB-1298, *Index of Trades*, both of which are available on request from Manpower Training Branch offices.

Construction Trades

Brick and Stone Mason

Educational requirements:
Grade 8 or equivalent.

Length of program:
4 periods of 1,600 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Constructs and erects walls, arches, fire places, chimneys, smoke stacks and other items that are comprised of such brick and stone masonry components as may be introduced to, and designated from time to time by the brick and stone masonry industry; lays fire brick and other refractory materials in walls and arches in the construction of furnaces, or in lining furnaces and retorts, or in enclosing boilers, tanks and heat treating furnaces.

Other information:
This trade came under voluntary certification in December, 1970.

See Ontario Regulation 529/70.

Cement Mason

Educational requirements:
Grade 8 or equivalent.

Length of program:
3 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
60, 75 and 90 per cent of journeyman's wage per period.

Duties:
Finishes concrete flooring by hand or with mechanical equipment, including the application of curing and surface treatments; carries out all phases of waterproofing and restoration of concrete; performs rubbing up and repairing of hardened concrete surfaces; places and finishes epoxy, plastic and other composition materials, and finishes and exposes aggregate in pre-cast and architectural concrete.

Other information:
This trade came under voluntary certification on July 1, 1967.

See Ontario Regulation 165/72.

Construction Millwright

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Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
60, 70, 80, and 90 per cent of journeyman's wage per period.

Duties:
Installs, repairs, and maintains mechanical machines, their components, related devices and systems in industrial plants, commercial and institutional buildings, or construction sites. A broad knowledge of metallurgy, welding, blueprint reading, and use of precise measuring instruments is essential.

Other information:
This trade came under voluntary certification on December 2, 1972.

See Ontario Regulation 543/72.

Electrician (Construction and Maintenance)

Educational requirements:

Grade 10 or equivalent.

Length of program:

5 periods of 1,800 hours each.

Credits for academic achievement:

200 hours in each period for Grade 12.

Minimum wages:

40, 50, 60, 70 and 80 per cent of journeyman's wage per period.

Duties:

Lays out, assembles, installs, repairs, maintains, connects or tests electrical fixtures, apparatus, control equipment and wiring for systems of alarm communication, light, heat or power in building or other structures; plans proposed installations from blueprints, sketches or specifications or installs panel boards, switch boxes, pull boxes and other related electrical devices; measures, cuts, threads, bends, assembles and installs conduits and other types of electrical conductor enclosures that connect panels, boxes, outlets and other related electrical devices; installs brackets, hangers, or equipment for supporting electrical equipment; installs in or draws electrical conductors through conductor enclosures; prepares conductors for splicing of electrical

connections, secures conductor connections by soldering or other mechanical means, or reinsulates and protects conductor connections, or tests electrical equipment for proper function.

Other information:

This trade became certified on October 1, 1964; compulsory certification became effective on May 1, 1967.

See Ontario Regulation 31 (as amended by O.R. 78/71).

Electrician (Domestic and Rural)

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Educational requirements:

Grade 10 or equivalent.

Length of program:

4 periods of 1,800 hours each.

Credits for academic achievement:

200 hours in each period for Grade 12.

Minimum wages:

40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:

Performs the work of an electrician in the construction, erection, repair, remodelling or alteration of houses, multiple dwelling buildings containing six or fewer dwellings, or buildings or structures used for farming; performs maintenance to electrical equipment in houses, multiple dwelling buildings containing six or fewer dwellings, or farms.

Other information:

This trade became certified on October 1, 1964; compulsory certification became effective on May 1, 1967.

See Ontario Regulation 31 (as amended by O.R. 78/71).

Educational requirements:
Grade 10 or equivalent.

Length of program:
3,844 hours minimum; 7,200 hours maximum.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 80 per cent upon successful completion of 6, 12, 18 and 24 units of training and work experience, respectively.

Duties:
Does the woodwork in the erection, alteration or repair of structures; builds and erects forms for concrete; erects scaffolds, runways, and hoisting towers; erects partitions; places door frames and window frames; places joists, nailing-strips and sleepers; lays floors; prepares walls and ceilings for plastering; makes and places door jambs; fits and fixes mouldings; cleans and sands for interior finish; checks all work with plumb level and square ensuring proper alignment; installs interior fixtures, kitchen cupboards, prepares and erects panels; lays out and erects stairs and hand rails; fits and fixes hardware; fits doors, windows and fixtures; weatherproofs outside walls; *does not include* a lather or cabinet maker.

Other information:
This trade came under voluntary certification on September 28, 1971.

See Ontario Regulation 371/71.

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
60, 65, 70, 75, 80, 85, 90 and 95 per cent of journeyman's wage in each half period.

Duties:
Performs lay-out, fabrication, assembly and installation of extruded frames, hardware, store fronts, wall facings, manual sliding doors, window sashes, manual door closers, automatic door operators and curtain walls; performs lay-out, fabrication, assembly and installation of suspended glass fronts, stuck glass fronts, auto glass, art glass, aquariums and similar special products; cuts, fits and installs glass in wood and metal frames for windows, skylights, store fronts and display cases, or on building fronts, interior walls, ceilings, tables and similar surfaces by means of mastic, screws or decorative mouldings; reads and understands design drawings, manufacturers' literature and installation diagrams.

Other information:
This trade came under voluntary certification on August 1, 1970.

See Ontario Regulation 34 (as amended by O.R. 408/73).

Educational requirements:
Grade 10 or equivalent and 17 years of age.

Length of program:
3 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
60, 70, 75, 80, 85 and 90 per cent of journeyman's wage for each half period.

Duties:
Field fabricates, assembles, installs, handles, hoists, erects, dismantles, reconditions, adjusts, alters, repairs or services all structural iron work, pre-cast and pre-stressed concrete, concrete reinforcing materials, ferrous and non-ferrous materials in curtain wall, ornamental and miscellaneous metal work and all other materials used in lieu thereof, and applies sealants where applicable to above; moves and places machinery and heavy equipment; reads and understands shop and field drawings used in fabrication and erection, including those taken from original architectural and engineering drawings; *does not include* a person employed as a shop man on the fabrication and assembly of materials in an industrial manufacturing plant.

Other information:
This trade came under voluntary certification on May 1, 1974.

See Ontario Regulation 171/73.

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 1,800 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 60 and 80 per cent of journeyman's wage per period.

Duties:
In the construction or repair of walls, partitions, ceilings, and arches in any structure, installs by tying, nailing, clipping or welding, wire, metal or wood, lath, plaster board or other materials and accessories to serve as a base for plaster, cement, or acoustic material; erects plastic and light metal studs, frames and accessories to receive plaster board, wire and metal lath; *does not include* a person who is engaged in the manufacture of equipment or the assembly of a unit prior to delivery to a building, structure or site, and the repair and maintenance of the installations in an operating industrial plant.

Other information:
This trade came under voluntary certification on June 1, 1967.

See Ontario Regulation 39 (as amended by O.R. 409/73).

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 1,800 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 80 per cent of journeyman's wage per period.

Duties:
Prepares and performs interior work to plaster, wall board, wood, metal, concrete masonry and allied materials; prepares and performs exterior work to wood, shingled roofs, concrete, stucco, metal and allied materials; prepares and applies wall coverings, wallpaper, grass cloth, wood veneer, vinyl fabrics and allied materials; prepares and performs work by mechanical processes, blow torches, steam wallpaper, stripping machines, spray guns and sand blasting; prepares and tapes dry-wall board, and erects scaffolding including swing stage.

Other information:
This trade came under voluntary certification on March 28, 1972.

See Ontario Regulation 93/72.

Educational requirements:
Grade 8 or equivalent.

Length of program:
4 periods of 1,600 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Applies plaster and stucco to the walls and ceilings, whether interior or exterior, of a structure; applies plaster and stucco on lath, masonry and rigid insulation; tapes gyproc and wallboard.

Other information:
This trade came under voluntary certification in December, 1970.

See Ontario Regulation 469/70.

Educational requirements:

Grade 10 or equivalent.

Length of program:

5 periods of 1,800 hours each.

Credits for academic achievement:

See page (4)–School Credits.

Minimum wages:

40, 50, 60, 70 and 80 per cent of journeyman's wage per period.

Duties:

Lays out, assembles, installs, maintains, or repairs in any structure, building or site, piping, fixtures and appurtenances for the supply of water for any domestic or industrial purpose or the disposal of water after it has been used for a domestic or industrial purpose; connects to piping any appliance that uses water supplied to it or disposes of waste; installs the piping for any process, including the conveyance of gas, or any tubing for a pneumatic or air-handling system; makes joints in piping; reads and understands design drawings, manufacturers' literature and installation diagrams for piping and appliances connected thereto; *does not include* a person engaged in the manufacture of equipment or the assembly of a unit prior to delivery to a building, structure or site, the laying of metallic or non-metallic pipe into trenches to form sanitary or storm sewers, drains or water mains, or the repair and maintenance of the installation in an operating industrial plant.

Other information:

This trade became certified in 1965, and on October 1, 1967 came under compulsory certification.

See Ontario Regulation 44 (as amended by O.R. 77/71, 269/71, 410/73).

Educational requirements:

Grade 10 or equivalent.

Length of program:

5 periods of 1,800 hours each.

Credits for academic achievement:

See page (4)–School Credits.

Minimum wages:

40, 50, 60, 70 and 80 per cent of journeyman's wage per period.

Duties:

Installs or assembles any component of a refrigerating or air-conditioning system; assembles or connects any pipe or duct used in piping refrigerant or conditioned air; overhauls or repairs any equipment used in refrigerating or air-conditioning systems; tests, adjusts or instructs in the operation of refrigerating or air-conditioning systems; *does not include* a person who repairs or installs hermetically sealed domestic self-contained appliances of not more than 9,000 B.T.U.

Other information:

This trade became certified on November 1, 1964. Compulsory certification became effective on November 1, 1966.

See Ontario Regulation 612/73.

Educational requirements:
Grade 10 or equivalent.

Length of program:
5 periods of 1,800 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages: 40, 50, 60, 70 and 80 per cent of journeyman's wage per period.

Duties:
Manufactures, fabricates, assembles, handles, erects, installs, dismantles, reconditions, adjusts, alters, repairs or services all ferrous and non-ferrous sheet metal work of No. 10 U.S. gauge or of any equivalent or lighter gauge and all other materials used in lieu thereof; reads and understands shop and field sketches used in fabrication and erection, including those taken from original architectural and engineering drawings or sketches; *does not include* a person employed in production commonly known as mass production.

Other information:
This trade became certified on October 1, 1965 and on October 1, 1967 came under compulsory certification.

See Ontario Regulation 298/73.

Educational requirements:
Grade 10 or equivalent.

Length of program:
5 periods of 1,800 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60, 70 and 80 per cent of journeyman's wage per period.

Duties:
Lays out, assembles, installs, maintains or repairs any heating system, cooling system, process system or industrial system; installs or connects piping in any building or structure; installs the piping for any process, including a process that conveys gas, or the tubing for any pneumatic or air-handling system; reads and understands design drawings, manufacturers' literature, and installation diagrams for any system referred to; *does not include* a person engaged in the manufacture of equipment or the assembly of a unit prior to delivery to a building, structure or site.

Other information:
This trade became certified on October 1, 1965 and on October 1, 1967 came under compulsory certification.

See Ontario Regulation 124/73.

Motive Power Trades

Alignment and Brakes Mechanic

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 1,800 hours each.

Credits for academic achievement:
200 hours in each period for Grade 12; 600 hours in each period for Grade 12 specializing in auto mechanics.

Minimum wages:
50, 70 and 90 per cent of journeyman's wage per period.

Duties:
Adjusts, maintains and repairs suspension and brake systems, wheels, rims, tires and tubes; balances wheels; inspects for frame alignment and re-aligns as necessary.

Other information:
This trade came under compulsory certification on April 1, 1969.

See Ontario Regulation 100/69.

Auto Body Repairer

Educational requirements:
Grade 8 or equivalent.

Length of program:
4 periods of 1,800 hours each.

Credits for academic achievement:
400 hours in each period for Grade 12 specializing in auto body repair.

Minimum wages:
50, 60, 80 and 90 per cent of journeyman's wage per period.

Duties:
Hammers out dents in body panels, fenders and skirting; files, grinds, sands, fills and finishes ready for priming, any dented welded or pieced area; by heat treatment, shrinks or stretches metal panels; welds breaks in body area; tests for and corrects faulty alignment of frames; paints and glazes; removes and installs body parts.

Other information:
This trade became certified in October, 1944 and came under compulsory certification on October 21, 1946.

See Ontario Regulation 99/69.

Automotive Machinist

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Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 1,800 hours each.

Credits for academic achievement:
300 hours in each period for Grade 12, specializing in auto mechanics or machine shop practice.

Minimum wages:
60, 70, 80 and 90 per cent of journeyman's wage per period.

Duties:
Reconditions and rebuilds internal combustion engines and associate components, power trains, brake system components and suspension system components; disassembles, cleans, inspects, reconditions and adjusts crankshafts, camshafts, drive shafts, cylinder heads, cylinder blocks, manifolds and fly-wheels; balances rotating parts, fits pins, grinds and turns brake drums and brake discs and faces brake shoes; bores and sleeves cylinder blocks, rebores and finishes engine cylinders, reconditions connecting rods, services valve trains, resizes pistons and aligns borings; welds crankshafts and cams, braces saddle bores and metallizes engine parts; tests cylinder blocks, manifolds, cylinder heads and engines; rebuilds engine components and parts.

Other information:
This trade came under voluntary certification on April 1, 1969.

See Ontario Regulation 97/69.

Automotive Painter

Educational requirements:
Grade 8 or equivalent.

Length of program:
2 periods of 1,800 hours each.

Credits for academic achievement:
None.

Minimum wages:
60 and 80 per cent of journeyman's wage per period.

Duties:
Refinishes painted surfaces of automobile and truck bodies and anodized aluminum moulding; mixes paint and matches colours.

Other information:
This trade came under voluntary certification on April 1, 1969.

Regulation 102/69.

Farm Equipment Mechanic

Educational requirements:
Grade 10 or equivalent.

Length of program:
5 periods of 1,800 hours each.

Credits for academic achievement:
500 hours in each period for Grade 12 and completion of approved pre-apprenticeship course; 400 hours in each period for Grade 12; 100 hours in each period for completion of approved pre-apprenticeship course.

Minimum wages:
50, 60, 70, 80 and 90 per cent of journeyman's wage per period.

Duties:
Inspects, disassembles, adjusts, repairs, overhauls, assembles or re-assembles, and tests tractors, machinery and other equipment used in farming operations other than motor vehicles and trailers registered for use on a highway under the Highway Traffic Act.

Other information:
This trade came under voluntary certification on October 5, 1971. Its Apprentice Training Program is successor to the Farm Machinery Servicing Program previously offered by The Ontario Department of Agriculture and Food at The Ontario Agricultural College, Guelph, to trainees selected and sponsored by farm equipment dealers.

See Ontario Regulation 395/71.

Fuel and Electrical Systems Mechanic

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 1,800 hours each.

Credits for academic achievement:
200 hours in each period for Grade 12; 600 hours in each period for Grade 12 specializing in auto mechanics.

Minimum wages:
50, 70 and 90 per cent of journeyman's wage per period.

Duties:
Repairs and adjusts fuel systems; installs, repairs and removes ignition systems, generators, alternators, starters, coils, panel instruments, wiring and other electrical systems and equipment; performs a complete tune-up of an engine; installs, inspects, maintains and removes motor vehicle air-conditioning systems.

Other information:
This trade became certified in October 1944 and came under compulsory certification on October 21, 1946.

See Ontario Regulation 93/69.

Heavy Duty Equipment Mechanic

Educational requirements:
Grade 10 or equivalent.

Length of program:
5 periods of 1,800 hours each.

Credits for academic achievement:
200 hours in each period for Grade 12, or for Grade 10 with a completed pre-apprenticeship course; 600 hours in each period for Grade 12 with a completed pre-apprenticeship course.

Minimum wages:
50, 60, 70, 80 and 90 per cent of journeyman's wage per period.

Duties:
Disassembles, adjusts, repairs and reassembles all heavy duty equipment components and systems, including suspensions for tracked vehicles, attachments and ancillaries used in construction, logging, mining, and farming operations and tests them for serviceability.

Other information:
This trade came under voluntary certification on April 1, 1969.

See Ontario Regulation 96/69.

Motorcycle Mechanic

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 1,800 hours each.

Credits for academic achievement:
200 hours in each period for Grade 12; 600 hours in each period for Grade 12 specializing in auto mechanics.

Minimum wages:
50, 70 and 90 per cent of journeyman's wage per period.

Duties:
Disassembles, adjusts, repairs and reassembles engines, power trains, suspensions and all systems of motorcycles, and tests them for serviceability.

Other information:
This trade came under compulsory certification on April 1, 1969.

See Ontario Regulation 101/69.

Motor Vehicle Mechanic

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Educational requirements:
Grade 10 or equivalent.

Length of program:
5 periods of 1,800 hours each.

Credits for academic achievement:
200 hours in each period for Grade 12; 600 hours in each period for Grade 12 specializing in auto mechanics.

Minimum wages:
50, 60, 70, 80 and 90 per cent of journeyman's wage per period.

Duties:
Disassembles, adjusts, repairs and reassembles engines, transmissions, clutches, rear ends, differentials, brakes, drive shafts, axles and other assemblies; tests for and corrects faulty alignment of wheels and steering mechanisms, manual or power; repairs or replaces suspension systems including shock absorbers and spring assemblies; installs, repairs and removes ignition systems, generators, alternators, starters, coils, panel instruments, wiring and other electrical systems and equipment; repairs and adjusts fuel systems; performs complete engine tune-ups; installs, inspects, maintains and removes motor vehicle air-conditioning and refrigeration systems.

Other information:
This trade was introduced in Ontario in 1928, certified in 1937 under The Apprenticeship Act, and came under compulsory certification on October 21, 1946.

See Ontario Regulation 94/69.

Service Station Attendant

Educational requirements:
Grade 8 or equivalent.

Length of program:
2 periods of 1,800 hours each.

Credits for academic achievement:
200 hours in each period for Grade 12; 600 hours in each period for Grade 12 specializing in auto mechanics.

Minimum wages:
60 and 80 per cent of journeyman's wage per period.

Duties:
Lubricates vehicles; maintains cooling systems, batteries, lights, horns, miscellaneous circuits, spark plugs, belts and hydraulic levels; replaces complete exhaust systems or parts; repairs tires and tubes and balances wheels.

Other information:
This trade came under voluntary certification on April 1, 1969.

See Ontario Regulation 103/69.

Transmission Mechanic

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 1,800 hours each.

Credits for academic achievement:
200 hours in each period for Grade 12; 600 hours in each period for Grade 12 specializing in auto mechanics.

Minimum wages:
50, 70 and 90 per cent of journeyman's wage per period.

Duties:
Repairs clutches, standard and automatic transmissions, and drive shafts; is familiar with engine operation in relation to its correct functioning with these components.

Other information:
This trade came under compulsory certification on April 1, 1969.

See Ontario Regulation 95/69.

Truck-Trailer Repairer

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 1,800 hours each.

Credits for academic achievement:
200 hours in each period for Grade 12.

Minimum wages:
50, 70 and 90 per cent of journeyman's wage per period.

Duties:
Repairs trailer suspension systems, frames, brakes and electrical systems, performs basic trailer body repair and maintenance of refrigeration equipment.

Other information:
This trade came under compulsory certification on April 1, 1969.

See Ontario Regulation 98/69.

Baker

Educational requirements:

Grade 9 or equivalent (may be Grade 8 if 1 year in trade or approved course).

Length of program:

2 periods of 2,000 hours each.

Credits for academic achievement:

See page (4)–School Credits.

Minimum wages:

60 and 80 per cent of journeyman's wage per period.

Duties:

Prepares all types of breads, pastries, pies, tarts, cakes, cookies and other baked goods by mixing or blending a variety of ingredients and baking them in an oven; ices, decorates, fills, or otherwise finishes such baked goods.

See Ontario Regulation 165/69.

Barber

Educational requirements:

Grade 9 or equivalent.

Length of program:

3 periods of 1,500 hours each.

Credits for academic achievement:

See page (4)–School Credits.

Minimum wages:

50, 70 and 90 per cent of journeyman's wage per period.

Duties:

Cuts and trims hair; tints, bleaches or dyes hair; shampoos hair and scalp; gives hair and scalp treatments or facial massages; cleans or dresses artificial hair pieces; shapes, colours or treats eyebrows or eyelashes; curls or waves hair; combs or brushes hair; shaves or trims beards or moustaches, and performs any other operation with respect to dressing hair to obtain an intended effect or according to a particular style; represents himself to the public as a barber only.

Other information:

This trade became certified in 1963 and on June 30, 1965 came under compulsory certification.

A person may also become a barber by registering with a licensed private school, at which he must pay the tuition fee. On the satisfactory completion of 1,200 hours of training and instruction, he is eligible to write the departmental examination. If successful, he receives an Interim Certificate of Qualification. He is then required to obtain one year of experience working in the trade under supervision before being granted a Subsisting Certificate of Qualification.

See Ontario Regulation 248/69.

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
50, 65, and 80 per cent of journeyman's wage per period.

Duties:
Is qualified to prepare, season and cook by appropriate methods, soups, meats, fish, poultry, vegetables, desserts and to prepare sauces, gravies and salads; has a working knowledge of meat cutting, baking and pastry cooking and other culinary skills; has specialist knowledge of menu planning, costing, and co-ordinating and controlling culinary operations.

Other information:
This trade came under voluntary certification on November 1, 1964.

See Ontario Regulation 166/69.

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 900 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Operates machine(s) to dry clean, with chemical solutions, clothing, textile furnishings and similar articles; may sort articles according to colour and condition and type of material and remove spots or stains by rubbing them with solvent; may filter solution after use to make it fit for re-use; when machine cleaning is unsuitable or unavailable, cleans by hand with a chemical solution; examines articles to ascertain condition and type of material and decides on type of treatment to be given; may clean upholstered furniture; removes, with chemical solution or substance, spots and stains from clothing, textile furnishings, leather goods and similar articles; may wash articles before removing spot or stain; smooths and shapes clothing, textile furnishings and similar articles by means of a pressing machine.

Other information:
This trade came under voluntary certification on February 1, 1967.

See Ontario Regulation 30.

Educational requirements:
Grade 9 or equivalent.

Length of program:
3 periods of 1,500 hours each.

Credits for academic achievement:
See page (4)–School Credits.
Secondary School course.

Minimum wages:
50, 70 and 90 per cent of journeyman's wage per period.

Duties:
Tints, bleaches or dyes hair; shampoos hair and scalp; gives hair and scalp treatments; cleans or dresses artificial hair pieces; cuts and trims hair; shapes, colours, or treats eyebrows or eyelashes; curls or waves hair by any means; combs or brushes hair; performs any other operation with respect to dressing hair to obtain an intended effect or according to a particular style.

Other information:
This trade became certified on June 17, 1936 and on September 1, 1962 came under compulsory certification.

A person may also become a hairdresser by registering with a licensed private school, at which he or she must pay the tuition fee. On satisfactory completion of 1,200 hours of training and instruction, he or she will be eligible to write the Ontario examination and, if successful, will receive an Interim Certificate of Qualification. After working under supervision in the trade for one year, a Subsisting Certificate of Qualification is granted.

See Ontario Regulation 35 (as amended by O.R. 207/71).

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)—School Credits, 200 hours in each period for Grade 12.

Minimum wages:
40, 50, 60 and 80 per cent of journeyman's wage per period.

Duties:
Installs, adjusts and repairs radio and television receivers and other domestic electronic equipment; makes adjustments to obtain desired density, linearity, focus, colour, and size of television pictures; isolates and detects defects by the use of schematic diagrams, volt meters, generators, oscilloscopes and other electronic testing instruments; tests and changes tubes and other components, repairs loose connections and repairs or replaces defective parts by the use of hand tools and soldering irons; understands electronic theory and shop techniques; *does not include* a person who is engaged in the manufacture of radio, television, amplifier or other related electronic equipment; employed in the repair and maintenance of radio, television, amplifier or other related electronic equipment in an industrial plant, or engaged in the wiring of radio, television, amplifier or other related electronic equipment to an external power source.

Other information:
This trade came under voluntary certification on December 1, 1966.

See Ontario Regulation 129/70.

Watch Repairer

Educational requirements:

Grade 10 or equivalent.

Length of program:

3 periods of 1,800 hours each.

Credits for academic achievement:

See page (4)-School Credits.

Minimum wages:

40, 60 and 80 per cent of journeyman's wage per period.

Duties:

Makes or fits parts for timepieces; repairs, alters, takes apart, assembles or reassembles timepieces or any part thereof; determines the condition of timepieces and estimates the repairs necessary; cleans, polishes or lubricates timepiece movements or any part thereof; tests, adjusts or regulates timepieces or any part thereof.

Other information:

This trade became certified on November 1, 1964; compulsory certification became effective on November 1, 1966.

A person may also become a watch repairer by registering in an approved course at a College of Applied Arts and Technology. On satisfactory completion of the course he will be eligible to write the departmental examination. If successful, he receives a Certificate of Qualification. Persons who complete only part of an approved training

course may complete their training as apprentices and on registration will receive full credit for the training previously taken.

See Ontario Regulation 51 (as amended by O.R. 227/71).

Non-Regulated Trades

2

Note:
The minimum wages referred to in this section
are suggested wage scales only.

Auto Upholsterer

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 1,800 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50 and 60 per cent of journeyman's wage per period.

Duties:
Makes up or repairs and installs auto interior trim and upholstery including lining panels, headliners, seats, vinyl hardtops, convertible tops, mats. May repair or replace and adjust seat frames and tracks. Matches or selects and lays out upholstery materials from patterns or old material; cuts out and assembles by stitching or cementing, fits and installs by sewing, use of fasteners or adhesives. Removes stains and shampoos upholstery.

Boilermaker

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Carries out operations involving the layout, fabrication, assembly and installation, repair and testing of all types of structural and plate work in the shop or field on boilers, all types of pressure vessels (including internals), heat exchangers, fired heaters, reactors and nuclear reactors.

Carpenter (Plant)

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Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 1,800 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
In an industrial plant or industrial processing area: cuts, shapes, assembles, erects and maintains various types of wood structures and fittings, using hand and power tools. Includes making, altering and repairing structural wood work and objects, at bench or on location, by performing general carpentry operations such as sawing, planing, fitting, nailing and glueing; builds, assembles, places and dismantles concrete forms; cuts, fits, and installs doors, door frames, window frames, staircases, interior and exterior trim; lays hardwood flooring, floor and ceiling tile; builds scaffolds, walls, floors, partitions, roofs, docks, trusses, equipment and machine bases.

Draftsman (Mechanical)

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50 and 60 per cent of journeyman's wage per period.

Duties:
Prepares working plans and other technical drawings from sketches or notes, for machines, engines, jigs and fixtures, mechanical equipment and various types of products; for engineering, manufacturing, illustrative and other purposes; checks dimensions of parts, materials to be used, the relation of one part to another and the relationship of the various parts to the whole unit; prepares finished drawings, making necessary calculations and utilizing knowledge of various machines and engineering manufacturing practices.

Additional draftsman classifications:
Aircraft, architectural, electrical, marine, pre-cast concrete, structural steel, tool and die, tool design, electro-mechanical, optical instruments, plastic mold design.

Electrician (Plant Maintenance)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
In an industrial plant: installs conduit, junction boxes, switches; pulls, insulates and seals cables. Installs, aligns, hooks up and tests machines. Installs lighting, control, communications and heating systems. Maintains, cleans and repairs starters, switches, controllers, circuit breakers, etc. Overhauls and repairs A.C. and D.C. motors and generators, rewinds armatures and stators, skims and undercuts commutators. Carries out static and dynamic balancing, removal and replacement of bearings, couplings, drives, V-belts, etc. Alignment of bearings, couplings and drives, continuity and insulation testing. Checking and adjustment of control circuits, calibration of temperature, pressure, light, etc., sensing and indicating devices.

Electro-Plater

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Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 1,800 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Sets up, controls and maintains plating equipment to coat metal objects electrolytically with chromium, nickel, zinc, copper cadmium or other metals to provide protective or decorative surfaces or to build up worn surfaces according to specifications. Makes up, filters, purifies and controls cleaning, rinsing and plating solutions; by colour, specific gravity or pH tests. Also carries out related processes including electrodeposits for engineering and special purposes. Electro-forming. "Electroless" plating. Electrolytic brightening and polishing. Plating of non-conductors. Anodizing of aluminum. Phosphating, chromating and "passivation" treatments. Metal colouring, lacquering and enameling.

Electronics Mechanic (Industrial Control)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Installs, tests, calibrates and repairs electronic control, monitoring and communications equipment in an industrial plant.

Foundryman (Coremaker)

Educational requirements:
Grade 10 or equivalent.

Length of program:
2 periods of 2,000 hours each.

Credits for academic achievement:
Nil.

Minimum wages:
40 and 50 per cent of journeyman's wage per period.

Duties:
Makes sand cores to form holes or hollows in the production of metal castings using hand tools, power tools, patterns, core drying ovens and applying knowledge of variables such as metal characteristics, molding sand, pattern contours and pouring procedures.

Foundryman (Molder)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Forms sand molds for the production of metal castings, using hand tools, power tools, patterns and flasks and applying knowledge of variables such as metal characteristics, molding sand, pattern contours and pouring procedures.

Horticulture (Landscape)

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50 and 60 per cent of journeyman's wage per period.

Duties:
Plans and executes landscaping operations and maintains grounds and landscape of public or private premises. Participates in preparing, draining and grading terrain, conditioning soil, seeding and sodding grounds and lawns, transplanting and locating trees, shrubs and plants for particular landscape effect. Repairs, rolls, mows and trims established lawns.

Prunes and trims shrubs and cultivates gardens. Sprays trees and shrubs and applies supplemental liquid and dry nutrients for lawn and tree growth. Installs sprinkler systems and fountains. Constructs rock gardens, ornamental pools, patios, walks and driveways. Constructs wooden landscape structures; bridges, garden shelters, benches, stairs, retaining walls, screens and fences.

Horticulture (Nurseryman)

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50 and 60 per cent of journeyman's wage per period.

Duties:
Plants, propagates, cultivates, and harvests trees, shrubs, ornamental and flowering plants in nursery. Mixes soil with other materials, such as sand and peat moss, to prepare plant beds in green houses, hot beds, cold frames or flats and plants specified seeds, seedlings or bulbs. Removes plants from beds and transplants them in pots or fields or packs them for shipment.

Fumigates plants to combat disease and pests. Grafts and buds trees of different varieties. Trims and prunes ornamental shrubs, hedges and trees and applies supplemental liquid and dry nutrients for growth. May grow sod from seed, cut and roll for shipment.

Industrial Mechanic (Millwright)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Installs, repairs and maintains mechanical machines, their components, related pneumatic and hydraulic systems in industrial plants or specific process areas; a broad knowledge of metallurgy, welding, blueprint reading, and use of precision measuring instruments is essential.

Additional industrial mechanic classifications
Machine tool fitter, machinery fitter, building maintenance, elevator maintenance, instrument repair, stationary engines, mobile equipment, utility maintenance, instrumentation, research and development, plant services, rigger, petroleum refinery, escalator mechanic, printing machinery fitter, pipe-fitting, die-casting, bakery equipment.

Ironworker (Plant)

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50 and 60 per cent of journeyman's wage per period.

Duties:
In an industrial plant: fabricates, assembles, installs, handles, hoists, erects, dismantles, reconditions, adjusts, alters, repairs or services all structural iron work, pre-cast and pre-stressed concrete reinforcing materials, ferrous and non-ferrous materials in curtain wall, ornamental and miscellaneous metal work and applies sealants where applicable; moves and places machinery and heavy equipment; reads and understands shop drawings used in fabrication and erection.

Layout Man (Structural Steel/Platework)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Selects materials called up in drawings, specifications and bills of material, including measuring, layout, and planning for efficient shop fabrication and assembly of heavy platework and structural steel to specified tolerances. Is familiar with the capabilities, capacities and set-up and operation of power shears, power saws, punch presses, bending brakes and rolls, drills, grinders, riveters, oxy-acetylene and arc cutting and welding equipment.

Machinist (Industrial)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Sets up and operates various types of precision metal cutting and grinding machines to close tolerances; a broad understanding of metallurgy is essential; familiar with use and care of precision measuring equipment; a detailed knowledge of blueprint reading and interpretation is required.

Additional classifications:
Machinist (automatic screw) and machinist (precision grinder).

Optics Technician (Lens and Prism Maker)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Sets up and operates grinding and polishing machines to make lenses, optical flats, and other precision optical elements for telescopes, microscopes, aerial cameras, and military optical systems, or for use as standards. Rough-grinds blanks of optical glass to approximate size and shape by machine, or by manually positioning and turning them against grinding wheel or lap. Blocks (mounts) work in plaster or other compound and fine-grinds it in oscillating and rotating machines to final size and shape. Polishes surfaces, using lens-polishing machine. Works to tolerances approaching millionths of an inch. Cements lens elements together to obtain corrected lens assemblies. May coat optics with anti-reflecting or high-reflecting coats.

Oil Burner Mechanic

Educational requirements:
Grade 10 or equivalent.

Length of program:
2 periods of 1,800 hours each.

Credits for academic achievement:
Nil.

Minimum wages:
40 and 50 per cent of journeyman's wage per period.

Duties:
Installs, cleans, repairs, overhauls, adjusts and removes oil burner installations and is licensed in accordance with the regulations of the Ontario Department of Labour Energy Branch.

Painter and Decorator (Plant)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
In an industrial plant; uses brushes, rollers and spray painting equipment to carry out interior and exterior painting; involving surface preparation, priming and application of finishing coats on building and construction materials. Also interior and exterior wood finishing; involving surface preparation, application of fillers and stain, bleaches, shellac, putties, varnish and lacquer. Tapes gyproc and wallboard. Hangs paper, vinyl fabrics, grass cloth and similar products. Is familiar with colour theory and harmony, mixing and tinting of coating materials.

Patternmaker

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Builds, shapes or repairs wood and metal patterns to drawings or specifications using trade related hand and power tools and woodworking machines and machine tools. Makes or repairs patterns, including die- block patterns, following blocks for die-sinking machines; using gypsum plasters and cements, poured resin or fiberglass and resin lay-ups. Machines and finishes to drawings or specifications. May specialize as patternmaker (wood), (metal), (wood, metal, plastic), (model maker) or (metal spinning).

Pipefitter (Industrial)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
In an industrial plant: assembles, installs and maintains, high-pressure or low-pressure pipeline systems for supplying air, steam and water, or for other purposes; examines drawings or other specifications; cuts passage holes for pipes in walls and floors; cuts, reams, threads and bends pipe, assembles pipe sections with fittings, couplings, bolts and screws; caulks joints; tests for leaks with air or water pressure; secures assemblies to structure with clamps, brackets and hangers; connects equipment to pipe systems.

Plastics Technician

Educational requirements:
Grade 10 or equivalent.

Length of program:
3 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50 and 60 per cent of journeyman's wage per period.

Duties:
Carries out set-up, quality control and testing operations on the processing, machine molding, forming and fabrication of thermoplastic materials and the hand lay-up, spray-up, filament winding and machine molding of thermoset plastic materials.

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Selects materials called up in drawings, specifications, and bills of material, including; measuring, layout and planning for efficient shop fabrication. Sets-up, operates or uses: power shears, power saws, punch presses, bending brakes and rolls, drills, grinders, riveters, oxy-acetylene and arc cutting and welding equipment, for the fabrication and assembly of heavy platework and structural steel to specified tolerances.

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
In an industrial plant: lays out, assembles, installs, maintains, or repairs piping, fixtures and appurtenances for the supply of water for industrial purposes or the disposal of water after it has been used for industrial purposes; connects to piping any appliance that uses water supplied to it or disposes of waste; installs the piping for any process, including the conveyance of gas, or any tubing for a pneumatic or air-handling system; makes joints in piping, reads and understands design drawings, manufacturer's literature and installation diagrams for piping and equipment.

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
In a job shop: composes a variety of **type** matter and printing plates; **locked up ready for** printing. Maintains and operates **letterpress** printing presses. Carries out finishing processes in bindery.

Printer — Lithography (Job-Shop)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
In a job-shop: uses various methods of composition, including use of camera to prepare flats for platemaking. Operates and maintains lithographic process printing presses. Carries out bindery and other finishing operations.

Sheet Metal Worker (Plant)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
In an industrial plant: fabricates, installs, or repairs products of sheet metal, for the maintenance of the plant including air handling, dust collection, ventilation systems and plant processes; by the use of trade related hand and power tools and equipment. Selects gauge of materials called in drawing specifications, including measuring, layout work and planning for efficient shop fabrication. Sets up, operates or uses and maintains: power shears, power saws, punch presses, press brakes and rolls, crimpers, drills, grinders, nibblers and oxy-acetylene, arc welding and spot welding equipment.

Ship Builder (Joiner)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Fabricates, assembles, installs, or repairs wooden furnishings in ships or boats and following blueprints: Lays out, cuts, assembles, and installs wood parts, such as deckhouses, doors, sashes, panelling, battery cribs, and refrigerator doors, using hand and power woodworking equipment and tools. Installs hardware and gaskets. Lays linoleum on deck or ladder treads. Installs fiberglass or cork insulation on inside of hull below waterline to prevent condensation. Cuts, fits, and installs glass in skylights, cabins. Molds, bends and laminates wood to form parts of ship. Fabricates, assembles, and installs desks, chairs, and cabinets. Shapes irregular parts to fit and joins matched grained wood, such as oak, mahogany, and teak.

Ship Builder (Ship Plater)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Performs the following operations on steel ship construction: mold loft; applies trade principles of waterlines, buttocks, shear and camber. Lays off and makes up templates from scribe boards. Marks steel from mold loft templates or blueprints. Operates plate brake, shears, punches, air press, countersinking and rolls. Operates furnace and bends heated shapes and plates to templates. Fabrication: assembles steel shapes and plates to form various sections of a ship. Controls steel members with applied local heat.

Steel Mill Worker (Blast Furnace)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Taps blast furnace to fill ladles with molten metal; drills taphole preparatory to tapping, using power hand drill. Positions splasher plate in front of taphole to prevent splashing of metal when furnace is tapped. Guides point of oxygen lance into drilled taphole to tap furnace. Opens gate and shutters to direct flow of molten iron into runners and into ladles. Plugs taphole after ladles are filled, using mud gun. Assists other workers in breaking up and removing slag from runners, relining runners with sand, clay, and refractory mixture, and drying relined runners. Repairs or replaces defective tuyeres, blowpipes, and boshplates in furnace, using handtools.

Steel Mill Worker (Rolling Mill)

Educational requirements:
Grade 10 or equivalent.

Length of program:
4 periods of 2,000 hours each.

Credits for academic achievement:
See page (4)–School Credits.

Minimum wages:
40, 50, 60 and 70 per cent of journeyman's wage per period.

Duties:
Sets up and operates hot or cold rolling mill to reduce or form metal into plate, sheet, wire, and rod of specified dimensions: adjusts, rollers, buffs, and guides according to size and dimensions of workpiece. Regulates flow, temperature, and solution of roll lubricants and metal coolants. Starts entry or rolloff tables that feed metal to and from rolls. Threads sheet or rod through rolls for further reduction. Controls speed of rolling mill and roll tables to synchronize flow of metal with tandem operations. Measures width and gauge of rolled metal, and adjusts rolls to form metal to specification. Observes rolling operation to detect curling, splitting or buckling of metal.

Manpower Training Branch District Offices

For further information on any aspect of
Ontario's Apprenticeship Program, write:

Manpower Training Branch
Ministry of Colleges and Universities
Mowat Block, Queen's Park
Toronto, Ontario M7A 1C2

or telephone:

Barrie 728-2727
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